

The following donations were announced:—

FOR THE LIBRARY.

- Memoirs of the Literary and Philosophical Society of Manchester. Second Series. Vols. XI. XII. London, 1854-5. 8vo.—*From the Society.*
- Journal of the Franklin Institute. Third Series. Vol. XXX. No. 6. Dec. 1855. Philadelphia. 8vo.—*From the Institute.*
- Report of the Commissioner of Patents, for the year 1854. *Arts and Manufactures.* Vols. I. II. Washington, 1855. 8vo.—*From the Hon. J. R. Tyson.*
- Message of James Pollock, Governor of Pennsylvania, to the Legislature, 1856. Harrisburg. 8vo.—*From Eli K. Price, Esq.*
- The American Journal of the Medical Sciences. No. LXI. New Series. January, 1856. Philadelphia. 8vo.—*From Dr. Isaac Hays, Editor.*
- The Medical News and Library. Vol. XIV. No. 157. Jan. 1856. Philadelphia. 8vo.—*From Blanchard & Lea.*

Pending nominations for membership were read.

Stated Meeting, January 18.

Present, twenty-six members.

Dr. DUNGLISON, Vice-President, in the Chair.

Letters were read:—

From the Royal Prussian Academy of Sciences, dated Berlin, Aug. 23, 1855, announcing a donation for the library, and returning thanks for publications of this Society.

From the Imperial Academy of Sciences, dated Vienna, Oct. 1, 1855, accompanying a donation for the library.

The following donations were announced:—

FOR THE LIBRARY.

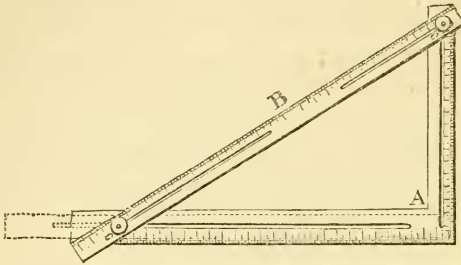
- Abhandlungen der Königlichcn Akademie der Wissenschaften zu Berlin: aus dem Jahre, 1854. Berlin, 1855. 4to.
- Monatsberichte der K. Akad. der Wissenschaften zu Berlin, aus dem Jahre, 1855. Berlin. 8vo.—*From the Royal Academy of Sciences, Berlin.*

- Sitzungsberichte der K. Akad. der Wissenschaften zu Wien:—Math. Nat. Classe, XV. Band, 3 Heft. XVI. Band, 1 Heft.—Phil. Hist. Classe, XV. Band, 2, 3 Heft; XVI. Band, 1 Heft. Wien. 1855. 8vo.—*From the Imperial Academy of Sciences, Vienna.*
- Monthly Notices of the Royal Astronomical Society. Vol. XV. No. 2. London. 8vo.—*From the Society.*
- Proceedings of the Boston Society of Natural History. Vol. V. No. 17. Boston. 8vo.—*From the Society.*
- Proceedings of the New Jersey Historical Society. Vol. VII. No. 4. Newark. 8vo.—*From the Society.*
- The African Repository. Vol. XXXI. No. 1. Jan. 1856. Washington. 8vo.—*From the American Colonization Society.*
- The American Journal of Science and Arts. Second Series. Vol. XXI. No. 61. Jan. 1856. New Haven. 8vo.—*From Profs. Silliman & Dana, Editors.*
- Report of the Superintendent of the Coast Survey, showing the progress of the Survey during the year 1854. Washington. 8vo.—*From A. D. Bache, Superintendent.*
- The Right Use of History: An Anniversary Discourse delivered before the Historical Society of Pennsylvania. By William Parker Foulke, of Philadelphia. Philadelphia, 1856. 8vo.—*From the Historical Society of Pennsylvania.*
- Jewelry and the Precious Stones: with a History and Description from Models of the largest individual Diamonds known: including, particularly, a consideration of the Koh-i-noor's claim to notoriety. By Hipponax Roset. Philadelphia, 1856. 8vo.—*From Joseph R. Paxton, Esq.*
- The Astronomical Journal. Vol. V. No. 18. Cambridge. 4to.—*From Dr. B. A. Gould, jr., Editor.*

The Rev. Dr. Rogers read a communication, illustrated by a model and diagrams, on an improvement in the construction of the ordinary carpenters' square, rendering it practically applicable to uses for which, in its present form, it is not calculated.

The attention of the members of the Society is respectfully requested to a model of an improvement on the common square used by mechanics, which it is thought is possessed of some peculiar advantages. It consists of a moveable limb, attached to the common square, with corresponding graduations. This limb is so arranged that the square

can be used for all ordinary purposes, when not required for those for which it is especially designed, and is applicable to the measurement of extended dimensions by a simple reduction in the value of the proportional parts. For which reason the graduations are in inches and twelfths of an inch, to represent with greater ease the measurement of feet and inches in its practical application.



Upon examination of the above diagram, it will be observed that the letter *A* designates the ordinary carpenter's square, and the letter *B* the moveable limb, which is connected with it by steel pins and a securing thumb-screw, *C*. These pins are arranged so as to traverse with ease in the slots which appear in the diagram, in both members of the square, and also in the moveable limb, thus allowing the limb to take any position that may be required in either or both members of the square, and securing it in such a position by the thumb-screw, *C*. The dotted line, shown in the diagram, on the principal member of the square, represents the position of the moveable limb when not required for use. In this position it does not interfere with the use of the square for ordinary purposes, the width of the limb being such as not to conceal the graduations of the square. It is to be observed, that the length of the limb is such that, when placed at the extreme of the slots heretofore described, the ends of the graduated edge will correspond with the ends of the graduated edges of each member of the square, and any deviation therefrom will show, at a glance, when the instrument is out of square.

The practical mechanic will at once discover the value of this instrument in many instances in his daily labours, combining, as it does, accuracy, simplicity and rapidity of operation, and securing economy of time and material. For instance, in its application to *braces*, in ordinary framing, where the footing and bearing being known, the length and mitre of each end can be determined in a moment. So, also, in the construction of *carriages for stairs*, the rise

and tread being determined, the limb is then arranged on the members of the square to correspond therewith, and the instrument thus arranged being applied to the plank from which the carriage is to be cut, the members of the square will give the scribing edge required for the saw.

To explain more clearly the practical operation of this instrument, we will suppose that the length and mitre of a brace is required, where the perpendicular bearing is ten (10) feet, and the horizontal footing is six (6) feet, all that is required in this case is to place the zero point of the moveable limb at ten (10) on the long member of the square, causing the graduated edge of the limb to intersect the graduated edge of the other member of the square at six (6), when the length of brace required may be found by the reading on the limb at the point of intersection, which will give, as the required length of brace, eleven (11) feet eight (8) inches. And, upon securing the moveable limb to the members of the square, by the thumb-screws, and applying the edge of the moveable limb to the side of scantling, the members of the square will give a scribing edge for the two mitres desired.

The sum of the squares of the two sides of a right angled triangle is equal to the square of the hypotheneuse.

$$\begin{array}{r}
 10^2 = 100 \\
 6^2 = 36 \\
 \hline
 136 \quad (11.66 = 11 \text{ feet } 8 \text{ inches.}) \\
 1 \\
 \hline
 21 \overline{)36} \\
 \underline{21} \\
 1500 \\
 \underline{1356} \\
 \hline
 2326 \overline{)14400} \\
 \underline{13956} \\
 \hline
 \hline
 \end{array}$$

A coin of *aluminum* was offered for the inspection of the members by Mr. Du Bois, accompanied by a communication on the subject.

In a former communication on the subject of *aluminum*, some remarks were made on the probability of its fitness for coinage, at a future day. The accompanying specimen of coin, struck in that metal, is exhibited as an illustration of that point. It is of the half dollar size, a little too thick; at the proper dimensions its weight would be $52\frac{1}{2}$ grains, a little more than one-fourth the weight of the silver half dollar. Its specific gravity is 2.8, being probably not quite free from iron; and there being some enhancement of gravity by the pressure in coinage. To show, however, that the metal is very firm and close in its texture (as might not be supposed, on account of its exceeding lightness), it may be mentioned, that the amount of compression, by the blow of coinage, was not much greater than is effected upon a planchet of copper.

The price of the metal is said already to have fallen from a gold to a silver valuation, and to be manufactured to some extent at Rouen.

The Society then proceeded to the election of a librarian, and Mr. Trego was re-elected.

The annual Standing Committees were appointed as follows:

Finance; Mr. Wagner, Mr. Justice, Mr. Fraley.

Hall; Mr. Peale, Mr. Fraley, Mr. Trego.

Library; Dr. Hays, Mr. Ord, Rev. Dr. Stevens.

Publication; Mr. Trego, Dr. Elwyn, Prof. Frazer.

The list of surviving members of the Society was read:—the number on the first of January, 1856, was 378,—of whom are resident in the United States 273, and in foreign countries 105.

The Society next proceeded to ballot for candidates for membership.

On motion, permission was granted to Mrs. Coolidge, the grand-daughter of Thomas Jefferson, or to Mr. Henry S. Randall, to have a copy taken by daguerreotype, or otherwise, of the Society's portrait of Mr. Jefferson, subject to the usual guaranty, for the safe return of the original to the Hall of the Society.

All other business having been concluded, the ballot-boxes were opened by the presiding officer, and the following named

gentlemen were declared to be duly elected members of the Society:—

HENRY COPPEE, of Philadelphia.	
GEORGE ALLEN,	do.
STRICKLAND KNEASS,	do.
HENRY WILLIAM FIELD, of London.	
JOHN P. BROWN, of Constantinople.	
GEORGE AUGUSTUS MATILE, of Philadelphia.	
THOMAS L. KANE,	do.
WILLIAM B. REED,	do.
CLEMENT A. FINLEY,	do.
ALBERT S. LETCHWORTH,	do.

Stated Meeting, February 1.

Present, thirteen members.

Dr. DUNGLISON, Vice-President, in the Chair.

Mr. Strickland Kneass, Prof. Henry Coppée, Dr. C. A. Finley and Mr. Thomas L. Kane, recently elected members, were introduced and took their seats.

Letters were read from Prof. Henry Coppée, William B. Reed, and Prof. G. A. Matile, dated Philadelphia, January 21, 1856; from Thomas L. Kane and Dr. C. A. Finley, dated Philadelphia, January 22, 1856; from Prof. George Allen, dated Philadelphia, January 26, 1856; from Strickland Kneass and from Albert S. Letchworth, dated Philadelphia, January 26, 1856,—respectively acknowledging the receipt of notice of their election as members of the Society:—

From the Society of Antiquaries, dated Somerset House, London, Nov. 20, 1855; and from the Linnean Society, dated London, Nov. 9, 1855, both returning thanks for Nos. 51, 52 of the Proceedings of the Society:—

From the Historical Society of Pennsylvania, dated Philadelphia, January 25, 1856, acknowledging the receipt of No. 54 of the Proceedings: and—

From the Bath and West of England Society, dated Bath,